Give Backyard Composting a Try!

Many Frederick County residents dutifully bag their cut grass and raked leaves, then place them out for curbside disposal or bring them to one of the yard trimming collection areas located around the County. And, according to the EPA, more than 34 million tons of food waste is generated in the United States each year. In 2010, food waste accounted for almost 14 percent of the total municipal solid waste stream. However, there is an alternative to these options that is more efficient, saves fuel and creates a valuable product for the landscape. What is this marvelous process? **Composting!**

Now is the perfect time to try your hand at backyard composting. Many people imagine that it may be a smelly, time consuming, and difficult task to master, but this does not have to be the case! Home composting is easy to learn and can be a fun family project, requiring only a small commitment of time. It also rewards with a wonderful byproduct— finished compost, often called "black gold" by gardeners. Although compost can be purchased at a garden center, it can be made at home for free! In addition to these benefits, by composting you are helping to keep biodegradable organics out of the waste disposal stream.

What is composting? Composting is a natural recycling process that turns raw materials (leaves, kitchen scraps, grass, etc.) into a rich, organic soil ammendment. Compost happens, on its own, all around us in the natural world. Beneficial microbes and other organisms are constantly at work decomposing organic matter, transforming "waste" into useable resources. By assisting this natural process we can speed up the time it takes and develop a system that works efficiently in our own back yards.

Why would we want to do this? Because compost is the ultimate soil improver! Research shows that adding compost creates better soil structure and increases soil's fertility and water holding capacity. This means that compost-rich gardens are more drought-tolerant and grow healthier, hardier plants. Compost is an ideal soil amendment for organic gardens. And, it's also a sustainable, environmentally-friendly way to manage yard waste.

You probably already have everything they need to get started composting: raw materials (such as weeds or kitchen waste), water and a little space. With a little know-how you'll be on your way! A compost bin is not necessarily needed; compost can be made in a simple pile. However, some people do prefer using a bin for aesthetic reasons or to help keep critters out of the pile. A bin can also help your pile to retain heat and moisture, which may speed up the decomposition process. The Frederick County Recycling Office has easy-to-use bins available for $20. The Recycling Office also has plans available for building your own bin from commonly available materials such as old trashcans or wooden pallets. A shovel or pitchfork is helpful to turn the pile, but some "low-maintenance" compost systems even skip that step!

The process for composting can be as simple or as complex as you want it to be. The basics are:

1. When placing new materials in your compost pile, always add more carbon-rich, dry "brown" materials (dried leaves, straw, twigs, shredded newspapers, paper, etc.) than high nitrogen "green" materials (grass clippings, fruit and vegetable scraps, coffee grounds, etc.) If you add too many "brown" materials, the pile will simply compost more slowly. But if you add too much wet, "green" stuff, your pile may stink!
2. Don't put meats, fats or oily products in your compost and make sure to cover or bury newly-added food scraps to deter critters (dogs, raccoons, and other compost raiders).
3. A larger pile tends to hold in moisture and heat better and to decompose faster, but you can add materials as you go. But a pile shouldn't be bigger than 4 feet tall or wide, as it will be difficult to manage!
4. Add water to create uniform dampness throughout; the material should have the consistency of a wrung out sponge, damp but not sopping wet.
5. Turning your pile occasionally will aerate the materials and allow them to decompose much faster.

And that's about all there is to getting started!

The material will be finished composting in 2 to 18 months, depending on the type of materials composted and how often the pile is turned. You'll know it is finished composting when the pile no longer heats up and it has a dark, crumbly texture with a sweet, earthy aroma. Finished compost looks a lot like potting soil. Add the finished compost to your flower or vegetable gardens or use it to lightly top-dress your lawn. You will soon see the benefits of your labor in a beautiful, healthy landscape.

That's the "crash course" in backyard composting! For more complete composting information, **you can sign up for one of our free home composting classes!** To register for a scheduled class, or to request an personalized instructional program on composting for your group or club, or to ask specific questions about your home compost pile, please contact Annmarie Creamer in the Office of Recycling, at *ACreamer@FrederickCountyMD.gov* or by calling 301-600-7405. You can also stop by our offices at 9031 Reichs Ford Road in Frederick to purchase a compost bin, Monday through Friday, 7:30 am-4:30 pm.

Examples of "BROWN" carbon-rich materials: paper towels, tissues and napkins, post-it notes, scrap paper, greeting cards, newspapers printed with soy-based inks, woodchips, sawdust from non-pressure-treated lumber, coffee filters, tea bags, dust bunnies, belly button lint, hay & straw, dried grass clippings, dried weeds, egg shells, nut shells, pine needles and fallen leaves, expired spices, burned toast, used matches, wood ash, pillow feathers, dried moss, peat moss, old potting soil, school glue, pencil shavings, construction paper, wax paper, shredded cardboard, tree bark, twigs, small branches, paper bags, paper muffin-tin liners, wool socks, cotton scraps, jute twine, burlap, vacuum cleaner contents, dryer lint, outdated seeds, old dried beans, popsicle sticks.

Examples of "GREEN" nitrogen-rich materials: freezer-burned produce, spoiled salad greens, expired fruits and veggies, vegetable peelings, fruit peels, apple cores, old molasses,, Jell-o, jelly, syrups and condiments, plate scrapings (with no meats or oils), coffee grounds, tea herbs, stale bread, old cooked pasta, grape stems, strawberry tops, apple cores, popcorn, oatmeal, stale snack foods and cereals, tofu, beans, pickles, old wine and beer, liquid from canned vegetables & fruits, melted fruit smoothies, stale dry pet food, aquarium plants, water & sludge, pet cage (bird, rodent, rabbit) cleanings, pet fur, people hair, chicken, cow and horse manure, faded flower bouquets, freshly-pulled weeds, fresh mown grass, garden annuals at the end of summer, scrap fruit and old plants from the vegetable garden.

COMPOSTING SYSTEMS

Type	Advantages	Disadvantages
Slow outdoor pile	Easy to start and add to. Low maintenance	Can take a year or more to decompose. Nutrients are lost to leaching. Can be odorous and attract animals and flies.
Hot outdoor pile	Fast decomposition. Weed seeds and pathogens are killed. More nutrient-rich because less leaching of nutrients. Less likely to attract animals and flies.	Requires lots of effort to turn and aerate and manage the process. Works best when you have lots of materials to add right away, as opposed to a little bit at a time.
Bins and boxes	Neat appearance. Holds heat more easily than a pile. Deters animals. Lid keeps rain off compost. If turned, decomposition can be quite rapid.	Costs you time to build the bins or money to buy them.
Tumblers	Self-contained and not messy. Can produce quick compost. Relatively easy to aerate by turning the tumbler. Odor not usually a problem. No nutrient leaching into ground.	Tumblers are costly. Volume is relatively small. Works best if material is added all at once.
Pit composting	Quick and easy. No maintenance. No investment in materials.	Only takes care of small amounts of organic material.
Sheet composting	Can handle large amounts of organic matter. No containers required. Good way to improve soil in large areas.	Requires effort to till material into the soil. Takes several months to decompose.
Plastic bag or garbage can	Easy to do year-round. Can be done indoors. Requires no back labor.	Is mostly anaerobic, so smell can be a problem. Can attract fruit flies. Need to pay attention to carbon/nitrogen ratio to avoid a slimy mess.
Worm Composter	Easy. No odor. Can be done indoors. Can be added to continuously. So nutrient-rich it can be used as a fertilizer. Good way to compost food waste.	Requires some care when adding materials and removing castings. Need to protect worms from temperature extremes. Can attract fruit flies.

COMPOST TROUBLESHOOTING GUIDE

Problem	Cause	Cure
Foul Odor	Too wet	Mix pile or add coarse, dry material (straw, chips, dry leaves) and mix
	Not enough air	Turn pile
	Too much nitrogen	Add more brown (high carbon) materials and mix.
Pile not heating	Pile too small	Build larger pile
	Pile too dry	Mix pile and add moisture
	Poor aeration	Mix pile
	Not enough nitrogen	Add more green (high nitrogen) material and mix
	Materials too coarse	Chop or shred materials
Pile is damp and sweet smelling but will not heat up	Not enough nitrogen	Add more green material
The pile is damp and warm in the middle, but nowhere else	Pile is too small	Collect more material and mix with old material to make new pile
The pile is damp and sweet smelling but still will not heat up	Lack of nitrogen	Mix in nitrogen material and turn pile
The center of the pile dry	Not enough water	Moisten material while turning the pile
Pile too hot (over 140 degrees)	Pile too large	Make a smaller pile
	Not enough ventilation	Mix pile
Pile attracting animal or insect pests	Wrong materials used in pile	Remove all meat and dairy products
	Kitchen waste on surface of pile	Bury kitchen waste in pile. May want to cover tops of pile with one inch layer of garden soil or finished compost.